



Using Digital Learning to Increase Student Engagement and Achievement

From Teachers and Students:

I don't "even need to remind students to bring in their devices anymore; they just do it automatically \dots Their faces light up, and it is hard to stop them from working because they are so engaged." Students have "lost track of time on more than one occasion due to being so engrossed in learning using electronic devices." – 5th Grade Teacher Ethan Bailey

Students are "100% engaged" in the learning process. – 6^{th} Grade Teacher Jean Crofts

"Students truly do feel like we are making strides to meet their needs. One of them remarked that these lessons involving BYOD are as close to how they envision their future as they have ever experienced in a school setting." $-7^{\text{th}}/8^{\text{th}}$ Grade Science Teacher Vic Dalla Betta

"Students focus better on their work" and often see "learning as playing" when they are able to use electronic devices to complete work. -2^{nd} Grade Teacher Levi Nickel

Students often choose to extend learning time at home, sometimes using the same app at home on their own time. – 4^{th} Grade Teacher Lisa Clark

"I wish we could do that every day. It was epic!" - 4th Grade Student

http://www.nbcmontana.com/news/new-way-of-learning-in-the-classroom/24084510

Ever Giving ~ Ever Growing ~ Evergreen

Education and Local Government September 15, 2014



Preparing for the Future of Digital Learning

From the United States Department of Education Office of Educational Technology:

"Schools and districts must develop the human capacity, digital materials, and device access to use the new bandwidth wisely and effectively. The Future Ready District Pledge establishes a framework for achieving those goals."

"Become Future Ready through:

- · Fostering and Leading a Culture of Digital Learning Within Our Schools
- · Helping Schools and Families Transition to High-speed Connectivity
- · Empowering Educators With Professional Learning Opportunities
- Accelerating Progress Toward Universal Access for All Students to Quality Devices
- · Providing Access to Quality Digital Content
- Offering Digital Tools to Help Students And Families #ReachHigher
- Mentoring Other Districts and Helping Them Transition to Digital Learning"

http://tech.ed.gov/FutureReadyPledge

Ever Giving ~ Ever Growing ~ Evergreen



Ensuring Students Benefit from Digital Learning

From the Alliance for Excellent Education and the Stanford Center for Opportunity Policy in Education (SCOPE):

"Technology—when implemented properly—can produce significant gains in student achievement and boost engagement, particularly among students most at risk."

"Secrets to Successful Technology Implementation:

- Technology access policies should aim for one-to-one computer access;
- · Technology access policies should ensure that speedy Internet connections are available;
- States, districts, and schools should favor technology designed to promote high levels of interactivity
 and engagement and make data available in multiple forms;
- Curriculum and instruction plans should enable students to use technology to create content as well
 as learn material; and
- Policymakers and educators should plan for "blended" learning environments, characterized by significant levels of teacher support and opportunities for interactions among students, as companions to technology use.
- [Districts must provide] professional learning opportunities for teachers on how to use the technology and pedagogies that are recommended, including technical assistance to help educators manage the hardware, software, and connections to the Internet."

Final Thoughts:

- · Ensure Access for All No Competitive Grants
- Come visit us to see digital learning in action!

Ever Giving \sim Ever Growing \sim Evergreen

'Bring your own device' program a big hit in Evergreen classes

By LAURIE BARRON

Evergreen School District | Posted: Thursday, December 19, 2013 9:59 am

"Students, get out your cell phones!" aren't words we typically condone, let alone encourage, in the school setting.

Yet, schools are changing, and educators must keep up.

In an effort to promote student engagement and the use of technology, the Evergreen School District recently revised policy to allow for a pilot 'Bring Your Own Device" initiative with five classes in our school district.

Evergreen School District's revised policy allows students to access the school district's wireless network using their own technology tools during the school day.



Bring Your Device to School

Students Brooke Karlstad, Rafe Shanks, teacher Lisa Clark, and Morgan Pound in a fourth-grade class take a science test using the Socrative Student app on their wi-fi devices. (Evergreen School District photo)

With principal and teacher approval and guidance, students may use their own devices in classrooms to enhance the learning environment.

The Evergreen School District Board of Trustees enthusiastically supported the Bring Your Own Device initiative because, according to Board Chair Tamara Williams, research shows that Bring Your Own Device initiatives "improve student engagement, attendance, discipline, and achievement while broadening learning beyond the classroom, promoting increased student collaboration and preparing students for tomorrow's workplace."

And while the Bring Your Own Device initiative has only been in place for two months, responses from both students and teachers are overwhelmingly positive.

In Ethan Bailey and Linda Bowman's fifth-grade class, students are using their own devices in class to explore websites, study historical events, and increase student engagement.

"I don't even need to remind students to bring in their devices anymore; they just do it automatically on Wednesdays," Bailey said. "Their faces light up, and it is hard to stop them from working because they are so engaged."

Bailey and his students have 'lost track of time on more than one occasion due to being so engrossed

in learning using electronic devices."

Walking into Jean Croft's sixth-grade science class, it is difficult not to be amazed, not only at the high level of student engagement, but also at students' vast knowledge of using electronic devices.

Spread out across Evergreen Junior High School's iPad lab, students were working with an array of devices, including smartphones and tablets of all makes and models, along with district-owned devices for students who did not have a personal device with them.

On this particular day, students applied their knowledge of the scientific method as they used apps to test their hypotheses of which chemical elements produce compounds. Watching students' excitement as they created chemical reactions (such as thallium-mercury alloys that are used in low temperature thermometers), reinforces the positive results of Bring Your Own Device.

With a huge smile across her face, Crofts could not help but be excited as well, as students were learning information that was personally relevant to them, all while being 100-percent engaged in the learning process.

While visiting eighth-grade science teachers Vic Dalla Betta and Melissa Hardman's class the next day, it was exciting to see students studying physical science at a more in-depth level. They were making use not only of apps to combine elements but also furthering their knowledge of Lewis Dot Structures to determine the number and kinds of bonds and how atoms or ions are connected.

Students then worked in groups and used their electronic devices to research alkali earth metals, halogens, or Nobel gasses and performed a skit that shared the general, physical and chemical properties and specific examples of elements within that group.

"Students truly do feel like we are making strides to meet their needs," Dalla Betta said. "One of them remarked that these lessons involving Bring Your Own Device are as close to how they envision their future as they have ever experienced in a school setting."

Students at East Evergreen Elementary School are getting connected as well.

Proving that age is not an impediment to using electronic devices, second- and fourth-grade students are helping lead the way in the Bring Your Own Device initiative for our school district.

In the youngest pilot class in the district, students in Levi Nickel's second-grade class are using electronic devices to work in groups and solve math problems.

"Students focus better on their work" and often see "learning as playing" when they are able to use electronic devices to complete work," according to Nickel.

What student doesn't want to have fun while learning?

Fourth-grade teacher Lisa Clark cannot praise her students' experiences with Bring Your Own Device

enough.

On a visit to Clark's class recently, students were clearly engaged in learning as they worked with devices to research different topics of importance to them such as Internet safety, U.S. symbols, bullying, classifying animals, nouns and the difference between tally charts and bar graphs.

Students researched their chosen topics, made posters and presented their findings to their classmates.

While students reported enjoying working with their friends while using their own device, Clark was thrilled with the level of student engagement and learning.

Perhaps the "coolest" part of the lesson, according to Clark, was having a student choose to use the same app at home on her own time to make another poster of the human body and brain, a topic the class had not studied but that the student wanted to study on her own and now could as a result of what she had learned in class that day.

In an effort to assist students who may not have a personal digital device to bring to school, the Evergreen School District is encouraging community members to donate Wi-Fi enabled devices (smart phones, tablets, etc.) that are in good working condition to the Evergreen School District's Bring Your Own Device program.

The devices will be wiped and made available for students who may not have access to a personal wireless device. Those making donations will receive a tax record form for tax deduction purposes.

While our Bring Your Own Device initiative is in its earliest phase, Williams emphasized that "We will be vigilant in continuing to monitor the program and the impact it is having on student growth and achievement. We are thrilled with the community support that we have received to date and look forward to the opportunities it provides our students."

Barron is superintendent of the Evergreen School District.



Teaching with Technology

Evergreen School District launches new program embracing iPads and smartphones in the classroom

BY DILLON TABISH // JAN 14, 2014 // NEWS & FEATURES



Last week at Evergreen Junior High, Jean Crofts' sixth grade social studies class spent the morning studying continents and oceans around the globe.

Instead of lecturing from the front of the room and instructing students to leaf through textbooks, Crofts bounced from table to table directing web traffic. Her 22 students were each engrossed in a device, whether it was an iPad, smartphone or other type of computer tablet. Instead of inspecting a traditional globe or atlas, they each poked and pinched the small screens, zooming in and out of interactive maps that displayed vibrant colors and geographical contours.

One student, using his finger like a wand, centered the screen on an elaborate satellite snapshot of the Himalayas. At a nearby table, a young girl clicked a button and suddenly watched the real-time climate pattern sweeping across Asia. Another classmate clicked an icon and India's population density of 1.2 billion people dotted the screen.

Crofts' class and four others in the Evergreen School District are the latest examples of the modern classroom in a new era of education.

The rapid evolution of technology and proliferation

of devices like iPads and smartphones have changed the ways educators are nurturing young minds. School districts across the country are increasingly embracing technology in the classroom, including Evergreen, where a new initiative aims to utilize state-of-the-art resources while shaping a generation of frequent Internet users.

At Evergreen, educators have established a new "Bring Your Own Device" program that establishes designated days during the week when students can bring iPads and other devices to school. On those days, teachers and students work together on assignments and lessons that fully involve the Internet or online programs, such as Google Earth. The students are required to have parent approval, are under constant teacher supervision and must sign into the district's safe and secure network, which bars them from accessing inappropriate content or websites such as Facebook. Along with common lesson plans, the BYOD classes also focus on teaching responsible social media etiquette, and raise awareness of the Internet's pitfalls.

Five classes enrolled in the upstart BYOD program this year, two at the elementary level and three in junior high.

"As a teacher if you can hook them with something, you have to do it," Crofts said.

The movement to expand new technology in the classroom is not without its doubters and critics, particularly as cyberbullying continues to come into view as a significant problem among teenagers.

But Evergreen Superintendent Laurie Barron believes educators have a responsibility – and opportunity – to create a positive, conducive learning environment within the modern world of technology.

"For the generation of students growing up now, to them iPhones, computers and iPads are not even technology, it's their daily needs. It's part of their daily lives," said Barron.

"We cannot continue to believe that as educators we are the sole providers of knowledge for students anymore. That's not what educators can be focused on anymore. We need to be facilitators of that knowledge. Students no longer need us to just provide information to them. They can go to Google and get it in an instant. What we've tried to do is use that tool and utilize it to our advantage."

Barron took over as superintendent last fall after nearly 10 years as a middle school principal in a large district near Atlanta, Ga. She was named National Middle Level Principal of the Year in 2012 by MetLife and the National Association of Secondary School Principals, largely because of her innovative ideas for keeping students engaged and successful in the classroom. One of those innovations included implementing technology through devices like iPads that are becoming commonplace.

"Kids are immediately engaged in these devices. But then when they come into the educational world, those things are not allowed," she said. "Why would we keep it out of the learning world? Research out there will show (devices do) improve student engagement, achievement, behavior. And it's preparing kids for real life after school."



Sierra Dunsmore, left, and Sydney Olson get help from sixth-grade teacher Jean Crofts as they work on a geography assignment during the Bring Your Own Device day at

In one of her first moves as superintendent, Barron proposed revising the district policy to

Evergreen Junior High on Thursday, January 9, 2014. – Greg Lindstrom | Flathead Beacon

establish the BYOD program. Although eyebrows were initially raised, Barron pitched the idea and laid out the benefits and safeguards.

"There's no texting, no phone calls. It is strictly for educational purposes within that designated class period," Barron said.

The board approved the initiative, and parents were notified and asked whether they wanted their students to be involved in the program. Students without a device can use one of the school's, and Evergreen has started accepting old devices from residents who can receive a tax deduction by donating them for students.

After receiving parent approval, students in certain classes can now bring devices to school on BYOD days, but they must follow close guidelines, otherwise they will lose their privileges. As a result, Barron has seen few problems arise.

"What we've seen is that they are afraid of losing their privileges, so we are not having discipline problems," Barron said. "They are terrified because we told them if they play with it at lunch or text friends in the hall, they lose their privilege."

Although Barron acknowledged the threat of cyberbullying does exist more and more in today's cellphone society, she hopes that students at Evergreen are realizing the benefits that devices can have academically, and that those ideals are extending beyond the classroom.

"While teaching some appropriate use, we hope that's transporting to home and that kids become more responsible with their devices," she said.

Office of Educational Technology

Future Ready District Pledge

Cuparint and ant of	-l- l
,, Superintendent of	_ do hereby affirm the commitment of
this district to work with students, educators, families, and members o	of our community to become Future
Ready by engaging in a wide range of activities such as:	

Fostering and Leading a Culture of Digital Learning Within Our Schools.

Future Ready district leadership teams work collaboratively to transform teaching and learning using the power of technology to help drive continuous improvement. We work together to protect student privacy and to teach students to become responsible, engaged, and contributing digital citizens.

Helping Schools and Families Transition to High-speed Connectivity.

Future Ready districts conduct comprehensive diagnostic assessments of the district's technology infrastructure and develop a sustainable plan to ensure broadband classroom connectivity and wireless access. Future Ready districts work with community partners to leverage local, state, and federal resources to support home Internet access outside of traditional school hours.

Empowering Educators With Professional Learning Opportunities.

Future Ready districts strive to provide everyone with access to personalized learning opportunities and instructional experts that give teachers and leaders the individual support they need, when they need it. Future Ready districts provide tools to help teachers effectively leverage learning data to make better instructional decisions.

Accelerating Progress Toward Universal Access for All Students to Quality Devices.

Future Ready districts work with necessary stakeholders to ensure that all students and educators across the district have regular access to devices for learning. Future Ready districts develop tools to support a robust infrastructure for managing and optimizing safe and effective use of technology, so students have opportunities to be active learners, creating and sharing content, not just consuming it.

Providing Access to Quality Digital Content.

Future Ready districts align, curate, create, and consistently improve digital materials and apps used in the support of learning. Future Ready districts use carefully selected high quality digital content that is aligned to college and career ready standards as an essential part of daily teaching and

http://tech.ed.gov/pledge/

learning. Teachers are able to share, discover, and adapt openly-licensed materials and teaching plans.

Offering Digital Tools to Help Students And Families #ReachHigher.

Future Ready districts make digital resources available that help access expanded college, career, and citizenship opportunities. Future Ready districts promote ways to leverage technology to expand equity through digital activities such as completion of the FAFSA online, virtual counseling services, college scholarship search tools, and online advising access, all of which help to return America to the nation in the world with the highest college completion rate by 2020.

Mentoring Other Districts and Helping Them Transition to Digital Learning.

Future Ready districts work to design, implement, and share their technology plans. Future Ready districts join regional summits, participate in an online Connected Superintendents' community of practice, and publish their Future Ready technology plan at a site such as www.MyDistrict.org/FutureReady.

Download the Future Ready District Pledge [PDF]

Sign the Pledge

New Report: Technology Can Close Achievement Gaps and Improve Learning Outcomes for At-Risk Students Report Identifies Secrets to Successful Technology Implementation

WASHINGTON, DC – As school districts around the country consider investments in technology in an effort to improve student outcomes, a new report from the Alliance for Excellent Education and the Stanford Center for Opportunity Policy in Education (SCOPE) finds that technology—when implemented properly—can produce significant gains in student achievement and boost engagement, particularly among students most at risk.

"This report makes clear that districts must have a plan in place for how they will use technology before they make a purchase," said Bob Wise, president of the Alliance for Excellent Education and former governor of West Virginia. "It also underscores that replacing teachers with technology is not a successful formula. Instead, strong gains in achievement occur by pairing technology with classroom teachers who provide real-time support and encouragement to underserved students."

Written by Linda Darling-Hammond, Molly B. Zielezinski, and Shelley Goldman, the report is based on a review of more than 70 recent research studies and provides concrete examples of classroom environments in which technology has made a positive difference in the learning outcomes of students at risk of failing courses and dropping out. Specifically, it identifies three important components to successfully using technology with at-risk students: interactive learning, use of technology to explore and create rather than to "drill and kill," and the right blend of teachers and technology.

The report, *Using Technology to Support At-Risk Students' Learning*, also identifies significant disparities in technology access and implementation between affluent and low-income schools. First, low-income teens and students of color are noticeably less likely to own computers and use the Internet than their peers. Because of their students' lack of access, teachers in high-poverty schools were more than twice likely (56% versus 21%) to say that their students' lack of access to technology was a challenge in their classrooms. More dramatically, only 3% of teachers in high-poverty schools said that their students have the digital tools necessary to complete homework assignments, compared to 52% of teachers in more affluent schools.

Secondly, applications of technology in low-income schools typically involves a "drill and kill" approach in which computers take over for teachers and students are presented with information they are expected to memorize and are then tested on with multiple-choice questions. In more affluent schools, however, students tend to be immersed in more interactive environments in which material is customized based on students' learning needs and teachers supplement instruction with technology to explain concepts, coordinate student discussion, and stimulate high-level thinking.

"When given access to appropriate technology used in thoughtful ways, all students—regardless of their respective backgrounds—can make substantial gains in learning and technological readiness," Darling-Hammond said. "Unfortunately, applications of technology in schools serving the most disadvantaged students are frequently compromised by the same disparities in dollars, teachers, and instructional services that typically plague these schools. These disparities are compounded by the lack of access to technology in these students' homes."

The report includes several recommendations that could expand the use and impact of technology among at-risk high school youth:

- Technology access policies should aim for one-to-one computer access;
- Technology access policies should ensure that speedy Internet connections are available;
- States, districts, and schools should favor technology designed to promote high levels of interactivity and engagement and make data available in multiple forms;
- Curriculum and instruction plans should enable students to use technology to create content as well as learn material; and
- Policymakers and educators should plan for "blended" learning environments, characterized by significant levels
 of teacher support and opportunities for interactions among students, as companions to technology use.

The report cautions that its recommendations must be accompanied by adequate professional learning opportunities for teachers on how to use the technology and pedagogies that are recommended, including technical assistance to help educators manage the hardware, software, and connections to the Internet.

The <u>Alliance for Excellent Education</u> is a Washington, DC-based national policy and advocacy organization dedicated to ensuring all students, particularly those traditionally underserved, graduate from high school ready for success in college, work, and citizenship.